Seed Weekly

21 June 2019

Potential Harmful Effect of Over-Diversification

Diversification is a tried and tested method of reducing investment risk. South African investors embrace this, as seen by the popularity of multi-asset funds. Half of the R2.4 trillion local Collective Investment Schemes (CIS) industry assets are invested in multi-asset portfolios.

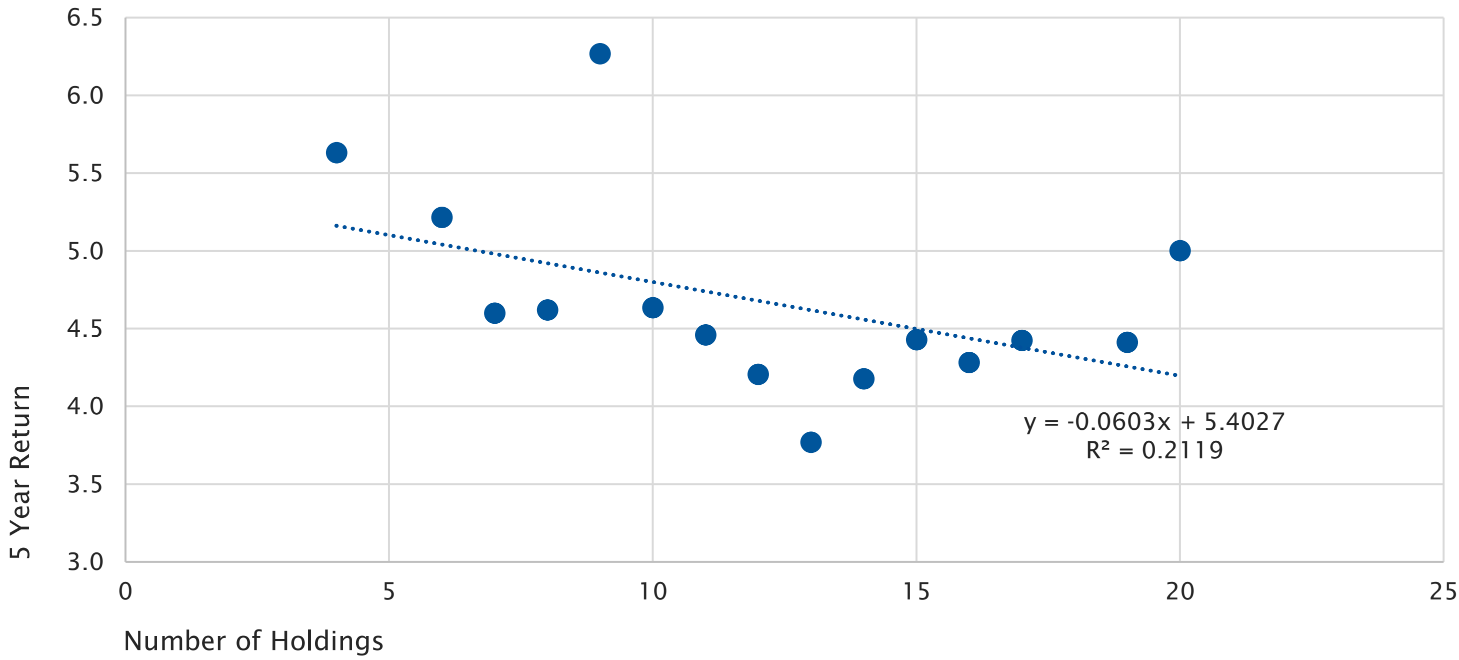
As a multi-manager, diversification is key to our strategy (blending uncorrelated managers/strategies to reduce risk and deliver a stable return over time). Stability in the return profile should ultimately lead to long term outperformance.

However, there is a risk that the benefits of diversification may diminish if overdone. Whilst it is helpful to mix funds together in a portfolio to reduce risk, mixing too many funds may ultimately come at the expense of returns, thus leading to investment objectives not being met. I investigate this possibility by analysing portfolios of funds listed in the South African Multi-Asset High Equity category. For simplicity, I use the 99 funds in the category listed as Fund of Funds, as they make use of not less than two other collective investment portfolios to build a diversified fund. The high equity category funds have fund holdings ranging from 4 to 23 funds.

Number of Fund Holdings and Median Returns

The median annualised return gradually declines with more funds held in the portfolio as illustrated in **Chart 1** (below) which shows a 5-year annualised return. A similar picture is painted when charting the number of holdings against 3-year, 7-year and 10-year returns. This could be a result of increased costs from holding too many funds, which impacts on overall performance. Over-diversification leads to low active risk and, if not accompanied by higher beta returns, diminishes the ability to outperform benchmarks.

Chart 1: Median 5-Year Annualised Return versus Number of Funds Held in a Fund of Funds Portfolio



Source: Seed Investments, Morningstar Direct (31 May 2019)

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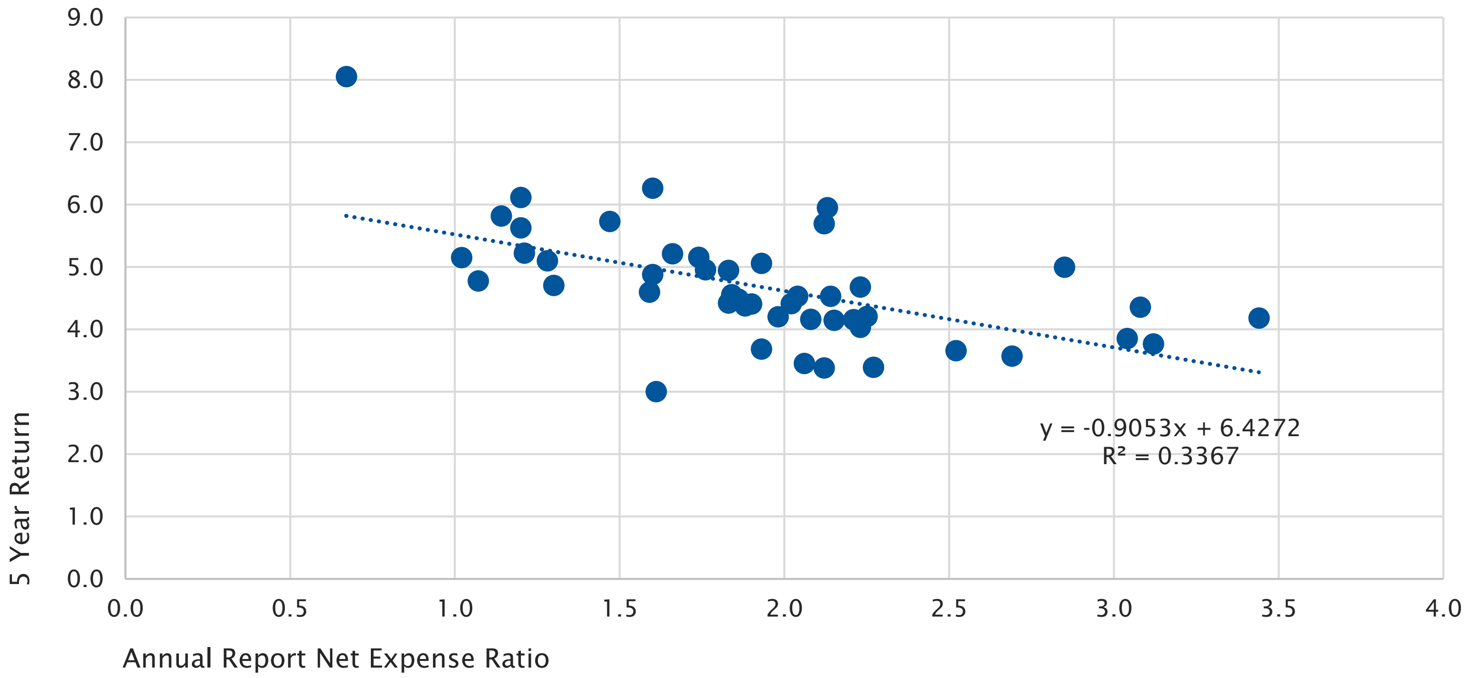
Costs versus Annualised Returns

Chart 2 (below) illustrates that as the costs of the portfolios increase, the returns diminish. This picture is also consistent with 3-year, 7-year and 10-year returns. It should, however, be noted that while there is a slight positive relationship between costs and number of holdings, it is not as significant. There are funds with numerous holdings that are cheaper than those with fewer holdings, and also a number of funds with different holdings cluster around the same fee.

Chart 2: Median 5-Year Annualised Return versus Annual Report Net Expense Ratio



Source: Seed Investments, Morningstar Direct (31 May 2019)

A study carried out on the US pension fund industry found a similar harmful impact from diversification having been taken too far. A sample of 88 of the largest US defined benefit plans (75% of which have more than $10 billion in assets), allocated on average to 17 equity funds each. Using concepts of active risk and active share (which measure how different a manager's portfolio is from the benchmark index), the study found that excessive diversification can lower the level of active risk thus causing fees per unit active risk and fees per unit active share to increase. This increases the probability of not meeting return objectives.

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Therefore, it is important to ensure that costs do not exceed benefits when trying to achieve diversification. A key element of our multi-management process is minimising cost through low cost strategies, negotiated fees and not over-diversifying. Our target is to minimize investment risk while optimising returns. A good way of achieving that is by following Occam's Razor (law of simplicity), keeping strategy holdings at an optimal level to benefit both on the risk and return side.

Kind regards,

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ADDITIONAL INFORMATION (where applicable)

Performance has been calculated using net NAV to NAV numbers with income reinvested. Full performance calculations are available from the manager on request.

DEFINITIONS (where applicable)

Annualised Return	Annualised return shows longer term performance rescaled to a 1-year period. Annualised return is the average return per year over the period. Actual annual figures are available to the investor on request.
Highest and Lowest Annual Return	The highest and lowest returns, since launch, for any rolling 1-year period have been shown.